AREA COMMAND EXECUTIVE SUMMARY / SITUATION REPORT
AREA COMMAND (U.S. EPA REGIONS 8, 6 AND 9)
GOLD KING MINE RELEASE INCIDENT
U.S. ENVIRONMENTAL PROTECTION AGENCY

Diversion channel at Gold King Mine Level 7 Adit

Subject:	**EXECSUM / SITREP #17** **Gold King Mine Release Incident** **San Juan County, Colorado** **Latitude: 37.8945 Longitude: -107.6384**
From:	Area Command Situation Unit
Date:	28 August 2015
Reporting Period:	0700 27 August 2015 through 0700 28 August 2015
Website:	www.epa.gov/goldkingmine

For Internal Use Only

EXECUTIVE SUMMARY

Situation Summary

United States Environmental Protection Agency (U.S. EPA) Area Command (AC), comprised of U.S. EPA Regions 8, 6 and 9, is continuing strategic management of the response Unified Incident Command Posts (ICPs).

Highlights, Key Updates/Changes

- AC continues to monitor relations with the Navajo Nation, including security.
- AC continues to develop a strategy for transitioning to long-term assessment in conjunction with U.S. EPA Headquarters.
- Clarification to the Sitrep #16 (27 August 2015) statement that construction of the bulkhead at the portal was completed. The referenced bulkhead construction is for the nearby Red and Bonita mine portal, not the Gold King Mine portal.

Area Command Emphasis

For the next operational period, the AC command emphasis will be:

- Positive and professional communications with stakeholders and response personnel.
- Safety and well-being of citizens and response personnel.
- Accelerate posting of analytical data with an optimized data processing process.
- Develop a global message that supports transition to long-term assessment.
- Coordinate response between Regions 8, 6 and 9; and transition to long-term assessment.

The metrics provided in this Situation Report represent quantities reported for work completed on 27 August 2015. Metrics highlighted in yellow represent a change from the previous day's Situation Report. Press releases are presented in Attachment 1. Attachment 2 includes situation reports from Regions 8, 6 and 9.

1.0 OPERATIONS

1.1 Sampling Operations

Operations sampling activities are summarized below. Sample quantities are based on the SCRIBE database, and include field samples and quality assurance/quality control (QA/QC) samples.

Table 1 - Operations Sampling Summary

Matrix	U.S. EPA Region	Qty. (27 August 2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	8	0	335
	6	1	283
Surface Water Samples	8	7	266
	6	9	216
	9	9	201
Sediment Samples	8	7	59
	6	9	231
	9	9	172

There has not been sampling of private drinking water wells in U.S. EPA Region 9.

The quantities shown above may vary from the quantities shown in Attachment 2 because the database is dynamic and changes continuously as samples are collected and recorded. In addition, time during which the samples are recorded and entered into the database within the operational period and preparation of the various situation reports also introduces a variable that affects the quantities reported at a given time.

1.2 Water Distribution and Transportation Branch

AC continues to monitor potable water, agricultural water and agricultural food deliveries. U.S. EPA purchased 1,120 cases of bottled water to supply the community. Public support activities completed are summarized below.

Table 2 - Public Support Summary

Activity	U.S. EPA Region	27 August 2015			Cumulative		
		Deliveries (each)	Qty. (gal)	Qty. (hay bales)	Deliveries (each)	Qty. (gal)	Qty. (hay bales)
Potable Water Deliveries	8	1	46,000		34	711,800	
Livestock / Agricultural Water Deliveries	8	0	0		47	141,980	
	6				59	1,104,990	
	9	0	0		13	218,400	
Agricultural Food Deliveries	6				1		244
	9	2		768	11		4,324

Bottled water was also provided to one other residence in Region 8. The Navajo Tribal Utility Authority is handling water deliveries in Region 9. The Region 6 agriculture and livestock team demobilized on 20 August 2015. There have not been potable water deliveries by the U.S. EPA in Regions 6 and 9; nor agricultural food deliveries by U.S. EPA in Region 8.

1.3 Community Engagements

Community engagements reported are summarized below.

Table 3 - Community Engagement Summary		
Description	U.S. EPA Region	Qty. (27 Aug 2015)
Community Engagements	8	0
	6	0
	9	0

1.4 Anticipated Events: VIPs/Congressional Visits and Public Events

Upcoming anticipated site visits and public events are summarized below.

Table 4 - Anticipated Site Visits and Public Events Summary		
U.S. EPA Region	Planned Event	Anticipated Date
Area Command	Animas River Stakeholder Group tour of mine	28 August 2015
	Meeting to consider possible formation of Coalition of Animas River Spill Partners	31 August 2015
	Southern Ute Tribal Leaders visit Gold King Mine site	2 September 2015
6	Animas River Recovery Open House (Farmington, NM)	1 September 2015
8	None scheduled.	N/A
9	None scheduled	N/A

1.5 Community Relations Branch

Effective 26 August 2015, calls to the Regional Call Center (970-385-8700) and National Call Center (844-607-9700) regarding the Gold King Mine Release Incident are being forwarded to EPA Headquarters. Calls received at the Regional and National Call Centers through 26 August 2015 are summarized below.

Call Number	U.S. EPA Region	Cumulative through 26 August 2015 (each)
EPA National Call Number (844-607-9700)	8	120
	6	67
	9	38
	Subtotal	**223**
Regional Call Center (970-385-8700)	8	**809**

2.0 DRINKING WATER SYSTEM IMPACTS

No known water systems are currently affected by the release or response operations.

3.0 FINANCE

3.1 Estimated Response Costs to Date

The table below summarizes estimated costs for the response.

Table 6 – Estimated Response Costs Reported as of 27 August 2015

Region	U.S. EPA Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	Cumulative U.S. EPA Contractors Cost	Total Cumulative Costs
8	$865,207	$111,873	$17,106	$1,910,253	$2,904,439
6	$376,740	$102,250	$12,989	$2,120,613	$2,612,592
9	$446,400	$70,000	$0	$699,924	$1,216,324
TOTAL	$1,688,347	$284,123	$30,095	$4,730,790	$6,733,355

3.2 Estimated Burn Rates

The table below summarizes current estimated burn rates for the response.

Table 7 – Estimated Daily Burn Rates

U.S. EPA Region	Estimated Daily Burn Rate (as of 27 August 2015)
8	$82,175
6	$58,710
9	$60,186
Total	**$210,701**

4.0 PARTICIPATING ENTITIES

Federal, regional, local and other entities participating in the response are summarized below.

4.1 Region 8

U.S. EPA
U.S. Coast Guard (USCG)
U.S. Fish and Wildlife Service (USFWS)
U.S. Bureau of Reclamation (USBOR)
Colorado Office of Emergency Management (OEM)
Southern Ute Indian Tribe (SUIT)
La Plata County
San Juan County
Colorado Department of Public Health and Environment (CDPHE)
State of Colorado Southwest Incident Management Team (IMT)
State of Colorado Northwest IMT
State of Colorado Bolder IMT
State of Colorado Jefferson County IMT
City of Durango
San Juan Basin Health Department

4.2 Region 6

U.S. EPA
USFWS
New Mexico Environment Department (NMED)
New Mexico (NM) Department of Health
NM Office of the State Engineer
NM Department of Game and Fish
County of San Juan – New Mexico

4.3 Region 9

U.S. EPA
USCG
Navajo Nation
State of Colorado
State of New Mexico
State of Utah
State of Arizona

5.0 PERSONNEL ON-SITE

The table below summarizes staffing numbers for the federal entities and agencies active in the response.

Table 8 - Personnel On-Site

Region	Agency / Entity	Number of Personnel (27 Aug 2015)
Area Command	U.S. EPA	13
	U.S. EPA Contractors	4
	USCG	3
8	U.S. EPA	6
	U.S. EPA Contractors	36
	USCG	6
	Other Federal, State, Local and Tribal Entities	5
6	U.S. EPA	14
	U.S. EPA Contractors	15
	USCG	0
	Other Federal, State, Local and Tribal Entities	0
9	U.S. EPA	3
	U.S. EPA Contractors	4
	USCG	2
	Other Federal, State, Local and Tribal Entities	2
	Total	**113**

6.0 CRITICAL INCIDENT STRESS MANAGEMENT (CISM)

AC has implemented a CISM program for personnel involved with the response. On 27 August 2015, the CISM center received **12** visits from response personnel. To date, the CISM center has received **169** visits.

7.0 SOURCE OF ADDITIONAL INFORMATION

For additional information, refer to www.epa.gov/goldkingmine .

ATTACHMENT 1
PRESS RELEASES

PRESS RELEASE # 1

U.S. EPA Website (http://www2.epa.gov/goldkingmine)

August 27, 2015: EPA Releases Additional Data and Public Records On Gold King Mine Response

(http://www2.epa.gov/goldkingmine/epa-releases-additional-data-and-public-records-gold-king-mine-response)

WASHINGTON – Today (August 27, 2015) EPA released new data trend graphs and additional public records on the Gold King Mine response.

What new documents are being released?

EPA is releasing a contractor's Draft Technical Memo of the August 5 incident, including photographs, an EPA On Scene Coordinator's description of the events depicted in the photographs, and an EPA phone duty officer's memorandum to the file about the incident and certain subsequent events. View the documents here.

What is EPA posting today?

Today EPA is posting graphs to show the trending concentrations of arsenic, cadmium, lead and mercury in surface water over time. These trend graphs were created from pre-event and post-event data posted to this website between August 10, 2015 and August 22, 2015.

These four metals are the primary contaminants of concern due to their potential to pose significant health risks.

We plan to post additional charts to show the concentrations of all 24 metals in surface water over the next weeks.

What do the trending graphs show?

EPA is posting 96 graphs to show the trending concentrations of arsenic, cadmium, lead and mercury in surface water at the 24 sampling locations where five or more samples have been collected. EPA did not populate graphs for those sampling locations where fewer than five samples were collected because those locations had insufficient data to create a representative trend line. If a chart could not be generated, the data points are still available to review on the website. And, in the event that additional samples are collected for these locations, EPA will add more charts to this website.

For each metal, the trend graphs illustrate that concentrations are significantly lower than the Recreational Screening Level (RSL). The specific RSLs for each metal are posted on the right side of each trend graph. RSLs, established by EPA, are health-based concentrations for each metal based on exposure during recreational use.

The RSLs for both soil/sediment and surface water are based on recreational scenarios in which an adult or child hiker/camper is exposed to surface water and sediment.

For surface water, the recreation-based screening levels assume that the adult or child would receive all of their daily water intake (2 liters/day) from the river over a continuous 64 day period. For sediment, the recreation-based screening levels are based on a hiker/camper that may become exposed to sediments alongside the riverbank over a continuous 64-day period. These RSLs are conservative, representing levels that are not expected to cause adverse effects over an extended period of time, based on a continuous 64-day exposure. These screening criteria represent the most conservative scenario for recreational users.

The trend graphs shows the concentrations of dissolved metals rather than total metals, based on the pre-event and post-event data. Concentrations are expressed in the dissolved, rather than the total, form of the metal because the dissolved is a better predictor of harm to human health and the environment.

For samples with metal concentrations that were too low to detect, EPA plotted the Method Detection Level (MDL) value onto the trend graph. Please note that the trend graphs do not specify which values are MDLs. Please also refer to the analytical data tables to determine the exact values of the sample results.

Sampling results for metals that are close to or at the MDL show variability that is not seen for results at higher concentrations. This may be due to laboratory instrument sensitivity and/or variations in sampling. EPA notes that this variability may be observed in some of the trend graphs as a series of lows and highs.

What data was used to create the trend graphs?

The trend graphs were created from pre-event and post-event data that show the conditions of the Animas and San Juan watersheds. Each sample was analyzed for 24 metals, including arsenic, cadmium, lead and mercury.

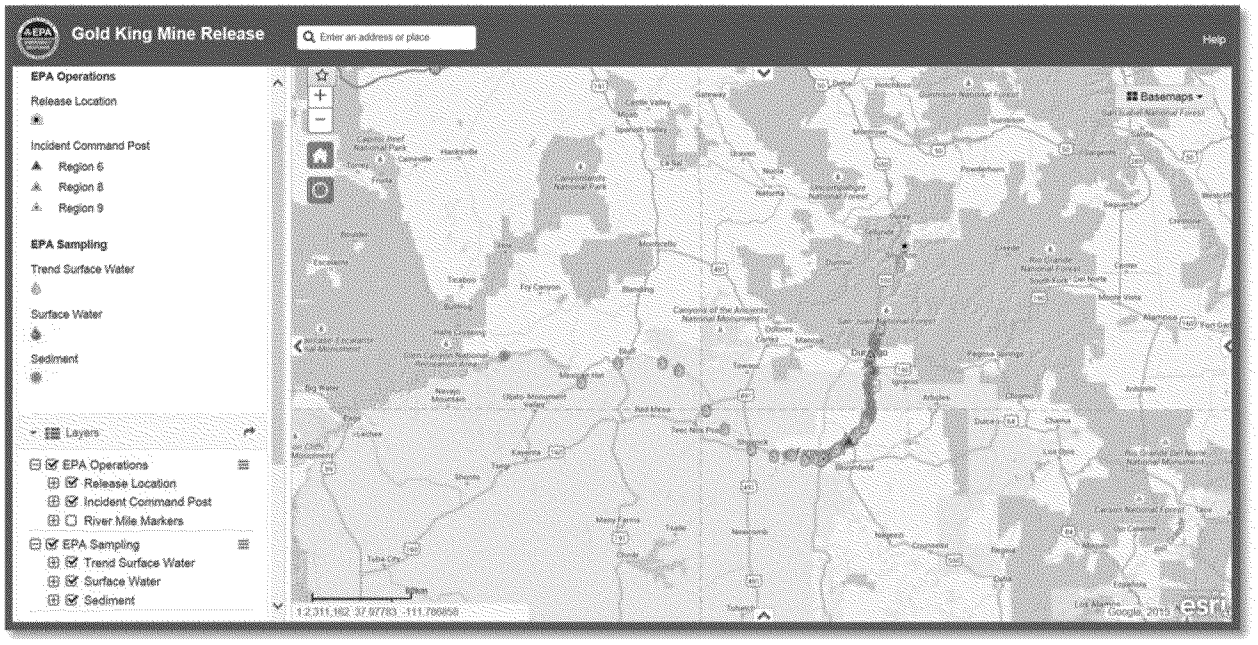
Pre-event samples were taken prior to the plume's arrival to establish a baseline for water quality comparisons. Data for pre-event sampling were posted on August 10, 12, 13, and 15, 2015.

What do the sample results show?

Both sediment and water quality samples have been reviewed and compared to RSLs for metals. The concentration of metals in all samples collected are below surface water, soil / sediment RSLs.

Based on the comparison of pre-event data with data collected over the past two weeks, the pre-event sampling data show that concentrations for all 24 metals in surface water are trending toward pre-event conditions.

EPA's long-term concern is the effect of metals deposited in sediments in the entire watershed and their release during high-water events and from long periods of recreational use. EPA is establishing a longer term watershed monitoring strategy for the surface water and sediments that have been affected by the Gold King Mine spill to identify potential long-term impacts working closely with State and local officials.



Gold King Mine Chronology

Documents related to the chronology of events at Gold King Mine. Background information about these documents.

- Site File Memorandum (from EPA): Gold King Mine Release Site Partial Chronology (PDF)(10 pp, 1 MB)
- Draft Technical Memorandum [Weston Solutions to EPA]: Gold King Mine Investigation and Blowout Event (PDF)(64 pp, 28 MB)
- Email Describing Chronology of Gold King Mine incident (PDF)(3 pp, 1 MB)

PRESS RELEASE # 2

U.S. EPA Website (http://www2.epa.gov/goldkingmine)

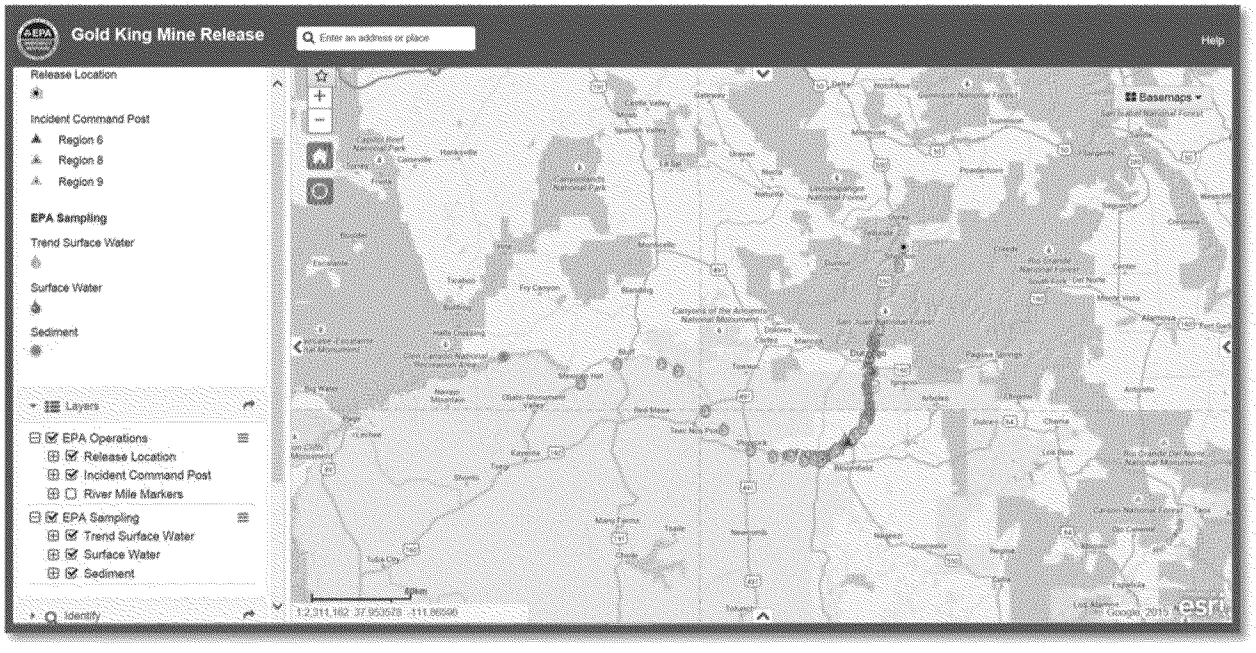
August 27, 2015: Sediment and water data from the San Juan River and Lake Powell. (http://www2.epa.gov/goldkingmine/data-gold-king-mine-response#datasets)

Data from Gold King Mine Response

This page includes links to data and related information collected as part of the Gold King Mine response.

Map of Gold King Mine Release Surface Water Sampling

The map below provides links to Gold King Mine Response sample data. These data are pulled from the sets uploaded on an ongoing basis. You may also view individual data sets by date posted in spreadsheet form.



- EPA sediment data from samples collected on August 15, 16, and 19, 2015 from the San Juan River and Lake Powell.
- EPA water quality data from samples collected on August 15, 16, and 19, 2015 from the San Juan River and Lake Powell.

PRESS RELEASE # 3

ANIMAS RIVER
RECOVERY OPEN HOUSE

TUESDAY
SEPTEMBER 1, 2015
3PM TO 8PM
MCGEE PARK MULTI-USE BUILDING

Federal, State, and Local agencies responding to the Gold King Mine Release will have representatives available to answer questions and offer technical assistance to interested parties.

This is your opportunity to ask questions and get answers, one on one.

Areas of interest that will be covered include:

Health & Wildlife:	Recreation on the Animas
Agriculture:	Crops, Livestock, and Gardening
Sediment:	Anticipated Long Term Environmental Monitoring of the River and Sediments
Water:	Water Quality
Sampling Support:	Technical Assistance in Interpreting Results
Economic Impacts:	Claims

For more information contact: San Juan County Emergency Management—505-334-7700
NMSU Extension Service—505-334-9496

PRESS RELEASE # 4

STATE OF NEW MEXICO
Environment Department

SUSANA MARTINEZ, GOVERNOR
Ryan Flynn, Cabinet Secretary
Butch Tongate, Deputy Secretary

NEWS ADVISORY
August 27, 2015
For Immediate Release
Contact: Allison Scott Majure
Communications Director
New Mexico Environment Department
505.231.8800 | Allison.majure@state.nm.us

Private Well Water Precautions for San Juan County & Other Affected New Mexico Residents

Private Well Owners Urged To Take Water Precautions

Santa Fe – Private domestic water well owners in San Juan County and other parts of New Mexico inundated by floodwater caused by recent heavy rain are being advised to take precautions. Flood water can be tainted by sewage leaked by flooded septic systems, or other contaminants, and the floodwater can contaminate water wells. For private domestic water well users whose wells have been inundated by the floodwater, the New Mexico Environment Department (NMED) recommends the following actions:

1. The well water should be vigorously boiled for 5 minutes before use for drinking, cooking, dishwashing or bathing, until a well water test shows no contamination.

2. The water well should be disinfected with the procedure detailed below.

3. After the disinfection procedure is complete, the well water should be tested for total and fecal coliform bacteria. Laboratories certified by NMED to test drinking water for bacteria are listed here http://www.nmenv.state.nm.us/dwb/Labs/documents/Certifiedlablistforweb_062013.pdf

4. The well can be returned to normal domestic use after the test results show no bacterial contamination.

Disinfection Procedure

1. Unscented household bleach containing 5.25% chlorine can be used to disinfect wells. One gallon of bleach will treat up to an 8-inch diameter well containing 100 feet of water.

2. Avoid direct skin contact with bleach. Wear rubber gloves and goggles when handling bleach. If skin or eye contact occurs, flush immediately with clean water.

3. Mix 2 quarts of bleach in 10 gallons of water; pour into well.

4. Connect a garden hose to a nearby faucet and wash down the inside of the well.

5. Open each faucet and let water run until a strong chlorine odor is detected, then turn it off. Do this for each indoor and outdoor faucet and hydrant. Drain the water heater and let it refill with chlorinated water. If a strong odor is not detected at all outlets, add more chlorine to the well. Also flush the toilets.

6. Mix an additional 2 quarts of bleach in 10 gallons of water. Pour it into the well without pumping.

7. Allow chlorinated water to stand in the well and pipes for at least 8 hours (preferably 12 to 24 hours). It is important not to drink, cook, bathe or wash with this water during the time period --- it contains high amounts of chlorine.

8. Run water from outdoor faucets to waste (away from desirable vegetation) until the chlorine odor is slight or not detected at each faucet. Then run indoor faucets until there is no chlorine odor.

9. Minimize the amount of chlorinated water flowing into the septic tank.

Some chlorine may persist in the system for 7-10 days. Water with a slight chlorine smell should be usable for most purposes including drinking.

Documents attached to this release also provide useful information from the U.S. Environmental Protection Agency on what to do after a flood.

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EPA United States Environmental Protection Agency

What to Do After the Flood

Drilled, driven or bored wells are best disinfected by a well or pump contractor, because it is difficult for the private owner to thoroughly disinfect these wells.

If you suspect that your well may be contaminated, contact your local or state health department or agriculture extension agent for specific advice on disinfecting your well. The suggestions below are intended to supplement flood precautions issued by State and local health authorities.

WARNING!
DO NOT TURN ON THE PUMP
There is danger of electrical shock and damage to your well or pump if they have been flooded

WARNING!
DO NOT WASH WITH WELL WATER
People drinking or washing with water from a private well that has been flooded will risk getting sick.

Well and Pump Inspection

Flood Conditions at the Well - Swiftly moving flood water can carry large debris that could loosen well hardware, dislodge well construction materials or distort casing. Coarse sediment in the flood waters could erode pump components. If the well is not tightly capped, sediment and flood water could enter the well and contaminate it. Wells that are more than 10 years old or less than 50 feet deep are likely to be contaminated, even if there is no apparent damage. Floods may cause some wells to collapse.

Electrical System - After flood waters have receded and the pump and electrical system have dried, do not turn on the equipment until the wiring system has been checked by a qualified electrician, well contractor, or pump contractor. If the pump's control box was submerged during the flood all electrical components must be dry before electrical service can be restored. Get assistance in turning the pump on from a well or pump contractor.

Pump Operation - All pumps and their electrical components can be damaged by sediment and flood water. The pump including the valves and gears will need to be cleaned of silt and sand. If pumps are not cleaned and properly lubricated they can burn out. Get assistance from a well or pump contractor who will be able to clean, repair or maintain different types of pumps.

Emergency Disinfection of Wells that have been Flooded

Before Disinfection: Check the condition of your well. Make sure there is no exposed or damaged wiring. If you notice any damage, call a professional before the disinfection process.

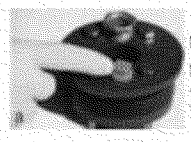
Materials Needed:

- One gallon of non-scented household liquid bleach;
- rubber gloves;
- eye protection;
- old clothes; and
- a funnel.

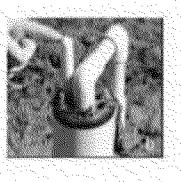
Step 1

If your water is muddy or cloudy, run the water from an outside spigot with a hose attached until the water becomes clear and free of sediments.

Step 2

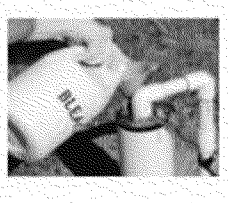


Determine what type of well you have and how to pour the bleach into the well. Some wells have a sanitary seal with either an air vent or a plug that can be removed (a). If it is a bored or dug well, the entire cover can be lifted off to provide a space for pouring the bleach into the well (b).



Step 3

Take the gallon of bleach and funnel (if needed) and carefully pour the bleach down into the well casing.

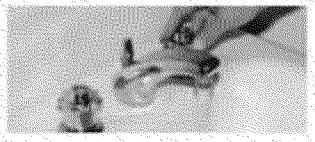


Step 4

After the bleach has been added, run water from an outside hose into the well casing until you smell chlorine coming from the hose. Then turn off the outside hose.

Step 5

Turn on all cold water faucets, inside and outside of house, until the chlorine odor is detected in each faucet, then shut them all off. If you have a water treatment system, switch it to bypass before turning on the indoor faucets.



Step 6

Wait 6 to 24 hours before turning the faucets back on. It is important not to drink, cook, bathe or wash with this water during the time period --- it contains high amounts of chlorine.

Step 7

Once the waiting period is up, turn on an outside spigot with hose attached and run the water into a safe area where it will not disturb plants, lakes, streams or septic tanks. Run the water until there is no longer a chlorine odor. Turn the water off.

Step 8

The system should now be disinfected, and you can now use the water.

Step 9

Have your water tested for bacteria 7 to 10 days after disinfection.

Sampling and Testing the Well Water

Contact the local health department to have well water sampled and tested for contamination. Or, call your state laboratory certification officer to find a certified lab near you. You can get this number from the Safe Drinking Water Hotline (1-800-426-4791).

If the health department issues sterile bottles for the private well owner to collect water samples, follow all instructions for the use of these bottles.

After the pump is back in operation, the health department should sample and test the water at regular intervals.

CAUTION: Because of the extensive flood area and the speed and direction of ground water flow, your well may not be a safe source of water for many months after the flood. The well can become contaminated with bacteria or other contaminants. Waste water from malfunctioning septic tanks or chemicals seeping into the ground can contaminate the ground water even after the water was tested and found to be safe. It will be necessary to take long range precautions, including repeated testing, to protect the safety of drinking water.

CONCERNS AND ADVISORIES

If in doubt about the well water supply, follow health department drinking and bathing advisories.

Remember that there is a danger of electrical shock from any electrical device that has been flooded; consult a certified electrician. Rubber boots and gloves are not adequate protection from electric shock.

Well disinfection will not provide protection from pesticides, heavy metals and other types of non-biological contamination. If such contamination is suspected, due to the nearness of these contaminant sources, special treatment is required.

Information on home water treatment units (also called point-of-use and point-of-entry units) is available from U.S. EPA by phoning the **Safe Drinking Water Hotline (1-800-426-4791)**.

If you observe chemical containers (including barrels and drums) that have moved to your property, call your state or county health department or the **Superfund Hotline (1-800-424-9346)**.

For information on long-term water quality conditions in the area, consult the state or county health department.

Well owners may have information about the construction, or testing of their well and this information will be helpful to the health department in determining water quality conditions.

Septic systems should not be used immediately after floods. Drain fields will not work until underground water has receded. Septic lines may have broken during the flood.

OFFICE OF WATER (4606 M) www.epa.gov/safewater EPA 816-F-05-021 AUGUST 2005

EPA United States Environmental Protection Agency

Agencia de Protección Ambiental de los Estados Unidos

Qué Hacer Después de una Inundación

Desinfectados por los pozos excavados, barrenados o regulados, deben ser puesto que desinfectar el pozo a fondo puede resultarle complicado al propietario.

Si usted sospecha que su pozo puede estar contaminado, comuníquese con su departamento de salud estatal o local, o con la agencia de extensión agrícola para que le asesoren como desinfectar su pozo. Las sugerencias a continuación tienen el motivo de servir como precauciones adicionales a las proporcionadas por las autoridades estatales y locales.

¡PRECAUCIÓN!
NO ENCIENDA LA BOMBA
Existe el peligro de electrocución y de daños a su bomba o pozo si están inundados

¡PRECAUCIÓN!
NO LAVE CON AGUA DE POZO
Aquellas personas que beban o laven con agua de un pozo privado que se haya inundado corren el riesgo de enfermarse.

Inspección de Pozos y Bombas

Inundación en el Pozo – El agua que corre rápidamente durante una inundación puede llevar escombros de gran tamaño que pueden aflojar algún aparato, desplazar materiales de construcción del pozo o dañar el revestimiento. El sedimento grueso presente en las aguas de inundación puede coroer los componentes de la bomba. Si el pozo no está debidamente sellado, el sedimento y agua de la inundación pueden penetrar en él y contaminarlo. Los pozos que tienen una antigüedad mayor de 10 años o tienen menos de 50 pies de profundidad son más propensos a contaminarse, aunque no se perciban daños aparentes. Es posible que algunas inundaciones hagan que algunos pozos se colapsen.

Sistema Eléctrico – Cuando las aguas de inundación hayan bajado y la bomba, así como el sistema eléctrico, se hayan secado, no encienda el equipo hasta que el sistema de alambrado haya sido verificado por un electricista calificado, o un contratista de pozos o de bombas. Si el panel de control de la bomba estuvo sumergido durante la inundación, todos los componentes eléctricos deben estar secos antes de que se pueda restaurar el suministro eléctrico. Solicite la ayuda de un contratista de pozos o bombas para encender la bomba.

Operación de la Bomba – Todas las bombas y sus componentes eléctricos pueden dañarse por el sedimento y aguas de inundación. La bomba, así como las válvulas y engranes, deberán ser limpiados y estar libres de limo y arena. Si las bombas no se limpian y lubrican adecuadamente, se pueden dañar. Solicite ayuda de un contratista de pozos o bombas, quien podrá limpiar, reparar o darle mantenimiento a diferentes tipos de bombas.

Desinfección de Emergencia de Pozos Inundados

Antes de la desinfección: Revise la condición de su pozo y asegúrese de que no haya cables expuestos o dañados. Si usted nota cualquier daño, llame a un profesional antes del proceso de desinfección.

Materiales que necesitará:
- Un galón de blanqueador (lejía) casero líquido sin olor;
- guantes de hule;
- protección para los ojos;
- ropa vieja, y
- un embudo.

Fase 1

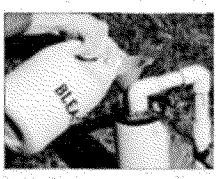
Si el agua sale con lodo o está turbia, abra una llave de agua externa que tenga una manguera y déjela correr hasta que el agua salga limpia y libre de sedimentos.

Fase 2

Determine el tipo de pozo que usted tiene y cómo vaciar el blanqueador dentro del mismo. Algunos pozos tienen un sello sanitario que pueden tener una apertura de ventilación o un tapón que se puede quitar (a). Si su pozo fue excavado o barrenado, la tapadera completa se puede quitar para crear un espacio para vertir el blanqueador dentro del pozo (b).

Fase 3

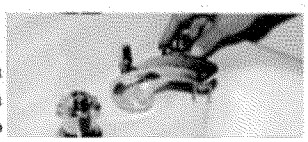
Tome el galón de blanqueador y el embudo (de ser necesario) y vierta cuidadosamente el blanqueador dentro del revestimiento del pozo.



Fase 4

Después de que se haya añadido el blanqueador, vierta agua al revestimiento del pozo con una manguera de una toma externa hasta que usted perciba un olor a cloro proveniente de la manguera. A continuación cierre la manguera.

Fase 5



Abra todas las llaves de agua fría, dentro y fuera del hogar, hasta que el olor a cloro se perciba en cada llave, y después ciérrelas. Si usted tiene un sistema de tratamiento de agua, cierre la válvula de paso para que el agua no entre en el sistema antes de abrir las llaves que estén dentro de su hogar.

Fase 6

Espere de 6 a 24 horas antes de abrir las llaves. Es muy importante que usted no beba, cocine, lave ni se bañe con esta agua durante este período de tiempo – el agua contiene una cantidad alta de cloro.

Fase 7

Una vez que el período de espera haya pasado, abra una llave que se encuentre fuera del hogar que tenga una manguera, y deje que el agua corra en un lugar seguro, donde no dañe las plantas, lagos, arroyos o sistemas sépticos. Deje el agua correr hasta que no tenga olor a cloro. Cierre la llave.

Fase 8

El sistema debe estar desinfectado ahora y usted podrá utilizar el agua.

Fase 9

Haga que se se le efectúen pruebas bacteriológicas al agua de 7 a 10 días después de la desinfección.

Muestreo y Pruebas del Agua de Pozo

Comuníquese con el departamento de salud local para que al agua de pozo se le tomen muestras y efectúen pruebas para detectar contaminación, o llame al oficial de certificación de laboratorios de su estado para localizar un laboratorio certificado cerca de usted. Usted puede obtener este número llamando a la **Línea Directa del Agua Potable Segura (1-800-426-4791).**

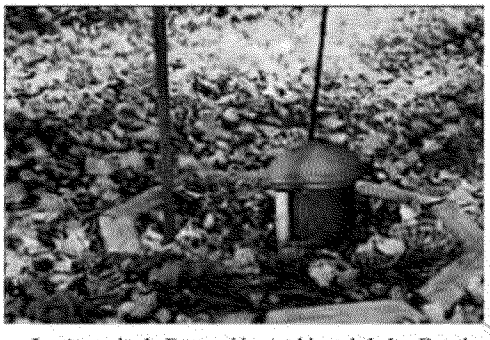
Si el departamento de salud proporciona frascos estériles para que el propietario del pozo recolecte las muestras, siga todas las instrucciones para el uso de estos frascos.

Después de volver a poner la bomba en operación, el departamento de salud deberá tomar muestras y efectuar pruebas del agua periódicamente.

PRECAUCIÓN: Debido a la extensión del área de la inundación y de la dirección del flujo de agua del subsuelo, es posible que su pozo no sea una fuente de agua segura por muchos meses después de la inundación. El pozo puede contaminarse con bacterias u otros contaminantes. Las aguas residuales provenientes de tanques sépticos dañados o de químicos que se infiltran al suelo pueden contaminar el agua del subsuelo, aún cuando se le hayan efectuado pruebas al agua y se haya determinado que es segura. Será necesario implementar medidas a largo plazo, incluyendo las pruebas repetidas del agua potable, para proteger la seguridad de la misma.

CONSIDERACIONES Y ADVERTENCIAS

Si usted duda de la calidad de la fuente de agua del pozo, siga las advertencias de agua potable del departamento de salud.



Recuerde que existe un riesgo de sufrir una descarga eléctrica al utilizar cualquier aparato eléctrico que haya estado inundado – consulte a un electricista calificado. Las botas y guantes de hule (goma) no proporcionan protección adecuada para prevenir una descarga eléctrica.

La desinfección de pozos no proporciona protección de pesticidas, metales pesados ni otros tipos de contaminación no biológica. Si se sospecha de dicha contaminación debido a la cercanía de fuentes de estos contaminantes, se requiere tratamiento especial.

La Agencia de Protección Ambiental de los Estados Unidos tiene información disponible acerca de unidades de tratamiento de agua para el hogar (conocidos también como sistemas de "punto de uso" y "punto de entrada"), llamando a la **Línea Directa del Agua Potable Segura (1-800-426-4791).**

Si usted nota envaces de químicos (incluyendo barriles y tambores) que se hayan transladado a su propiedad, llame al departamento de salud del condado o del estado, o a la **Línea Directa del programa Superfund (1-800-424-9346).**

Para información de la calidad de agua de su área a largo plazo, consulte al departamento de salud de su condado o de su estado.

Los propietarios de pozos pueden tener información de la construcción o de las pruebas efectuadas a su pozo, y esta información puede serle útil al departamento de salud para determinar las condiciones de calidad de agua.

Los sistemas sépticos no deben usarse inmediatamente después de una inundación. Las áreas de desagüe no funcionarán hasta que el nivel de agua subterránea haya bajado. Las líneas sépticas pueden haberse dañado durante la inundación.

OFICINA DE AGUA (4606 M) www.epa.gov/safewater EPA 816-F-05-021 AGOSTO DEL 2005

Septic Systems—What to Do after the Flood

Where can I find information on my septic system?

Please contact your local health department for additional advice and assistance. For more information on onsite/decentralized wastewater systems, call the National Environmental Services Center at (800) 624-8301 or visit their website at www.nesc.wvu.edu.

Do I pump my tank during flooded or saturated drainfield conditions?

No! At best, pumping the tank is only a temporary solution. Under worst conditions, pumping it out could cause the tank to try to float out of the ground and may damage the inlet and outlet pipes. The best solution is to plug all drains in the basement and drastically reduce water use in the house.

What if my septic system has been used to dispose wastewater from my business (either a home-based or small business)?

In addition to raw sewage, small businesses may use their septic system to dispose of wastewater containing chemicals. If your septic system that receives chemicals backs up into a basement or drain field take extra precautions to prevent skin, eye and inhalation contact. The proper clean-up depends of what chemicals are found in the wastewater. Contact your State or EPA for specific clean-up information.

What do I do with my septic system after the flood?

Once floodwaters have receded, there are several things homeowners should remember:

- Do not drink well water until it is tested. Contact your local health department.
- Do not use the sewage system until water in the soil absorption field is lower than the water level around the house.
- Have your septic tank professionally inspected and serviced if you suspect damage. Signs of damage include settling or an inability to accept water. Most septic tanks are not damaged by flooding since they are below ground and completely covered. However, septic tanks and pump chambers can fill with silt and debris, and must be professionally cleaned. If the soil absorption field is clogged with silt, a new system may have to be installed.
- Only trained specialists should clean or repair septic tanks because tanks may contain dangerous gases. Contact your health department for a list of septic system contractors who work in your area.
- If sewage has backed up into the basement, clean the area and disinfect the floor. Use a chlorine solution of a half cup of chlorine bleach to each gallon of water to disinfect the area thoroughly.

- Pump the septic system as soon as possible after the flood. Be sure to pump both the tank and lift station. This will remove silt and debris that may have washed into the system. Do not pump the tank during flooded or saturated drainfield conditions. At best, pumping the tank is only a temporary solution. Under worst conditions, pumping it out could cause the tank to try to float out of the ground and may damage the inlet and outlet pipes.
- Do not compact the soil over the soil absorption field by driving or operating equipment in the area. Saturated soil is especially susceptible to compaction, which can reduce the soil absorption field's ability to treat wastewater and lead to system failure.
- Examine all electrical connections for damage before restoring electricity.
- Be sure the septic tank's manhole cover is secure and that inspection ports have not been blocked or damaged.
- Check the vegetation over your septic tank and soil absorption field. Repair erosion damage and sod or reseed areas as necessary to provide turf grass cover.

Remember: Whenever the water table is high or your sewage system is threatened by flooding there is a risk that sewage will back up into your home. The only way to prevent this backup is to relieve pressure on the system by using it less.

1. What are some suggestions offered by experts for homeowners with flooded septic systems?

2. Use common sense. If possible, don't use the system if the soil is saturated and flooded. The wastewater will not be treated and will become a source of pollution. Conserve water as much as possible while the system restores itself and the water table fails.

3. Prevent silt from entering septic systems that have pump chambers. When the pump chambers are flooded, silt has a tendency to settle in the chambers and will clog the drainfield if it is not removed.

4. Do not open the septic tank for pumping while the soil is still saturated. Mud and silt may enter the tank and end up in the drainfield. Furthermore, pumping out a tank that is in saturated soil may cause it to "pop out" of the ground. (Likewise, recently installed systems may "pop out" of the ground more readily than older systems because the soil has not had enough time to settle and compact.)

5. Do not dig into the tank or drainfield area while the soil is still wet or flooded. Try to avoid any work on or around the disposal field with heavy machinery while the soil is still wet. These activities will ruin the soil conductivity.

6. Flooding of the septic tank will have lifted the floating crust of fats and grease in the septic tank. Some of this scum may have floated and/or partially plugged the outlet tee. If the septic system backs up into the house check the tank first for outlet blockage. Clean up any floodwater in the house without dumping it into the sink or toilet and allow enough time for the water to recede. Floodwaters from the house that are passed through or pumped through the septic tank will cause higher flows through the system. This may cause solids to transfer from the septic tank to the drainfield and will cause clogging.

7. Locate any electrical or mechanical devices the system may have that could be flooded to avoid contact with them until they are dry and clean.

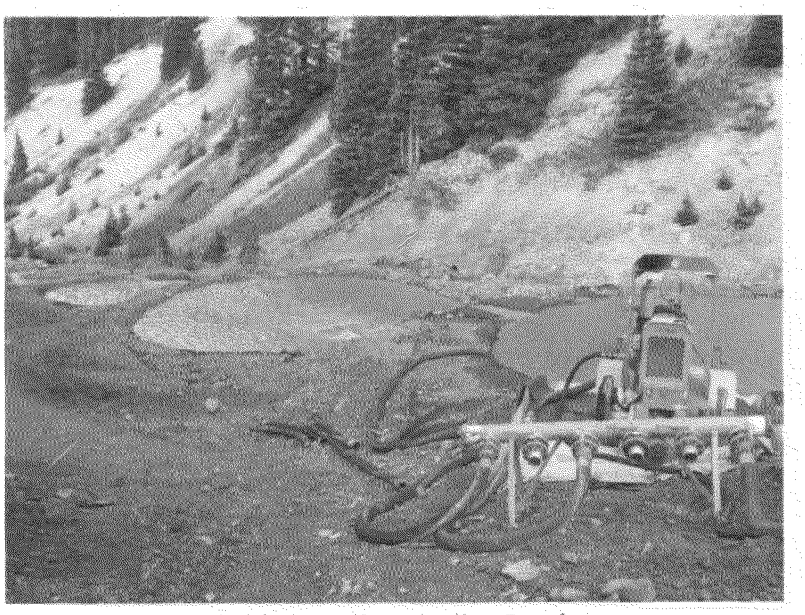
8. Aerobic plants, upflow filters, trickling filters, and other media filters have a tendency to clog due to mud and sediment. These systems will need to be washed and raked.

Office Water (4606 M) www.epa.gov/safewater EPA 816-F-05-029 September 2005

ATTACHMENT 2
REGIONAL SITUATION REPORTS

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
2015 Gold King Mine Release SITREP

EPA
D-EPA
CDPS DHSM
LAPLATA



Gold King Mine Settling Ponds

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 8

Subject:	Situation Report #19 Gold King Mine Release San Juan County, CO Latitude: 37.8945 Longitude: -107.6384
From:	Colorado Unified Command (Situation Unit)
Date:	08/28/2015
Reporting Period:	08/27/2015
Website:	http://www2.epa.gov/goldkingmine

New information included in the SITREP is in bold text.

Executive Summary

On 8/5/2015, while investigating the Gold King Mine in Colorado, an EPA cleanup team working at the mine triggered a release of mine wastewater into Cement Creek which feeds into the Animas River. The release resulted in coloring the Animas River a mustard-orange as the pulse of the release moved downstream. The leading edge of the release passed through Durango, Colorado, on Friday, 8/7/2015, and on 8/8/2015, it crossed the border into New Mexico where it eventually discharged into the San Juan River. As the leading edge of the release moved further down the Animas River into the San Juan River it became indistinguishable.

A Unified Command (UC) located in Durango, Colorado was established and continues to assess and mitigate contamination resulting from the release. The UC includes EPA Region 8, State of Colorado Office of Emergency Management (OEM), Southern Ute Indian Tribe, and La Plata County. San Juan Basin Health Department, San Juan County and the Ute Mountain Ute Tribe are making available Administrators to the UC. The City of Durango and the Colorado Department of Public Health and the Environment (CDPHE) are coordinating agencies.

EPA continues to take daily surface water samples from the Animas River and Cement Creek. Animas River sediment sampling continues to occur. CDPHE has sampled raw and finished public drinking water supply systems. **The EPA has also been sampling private drinking water wells, and continues to sample wells within the buffer area of the Animas River and impacted ditches.** The results of the sampling analysis are being distributed as appropriate. The EPA has also completed irrigation ditch assessment and ditches were flushed and monitored prior to opening for irrigation use.

The Animas River reopened to recreational use mid-day Friday 8/14/2015 after being closed to all watercraft since 8/6/2015. The City of Durango's drinking water intake was not in use at the time of the event and remained off line until Friday, 8/14/2015. Currently all irrigation ditches are open and available for irrigation use.

An EPA Area Command (AC) is also located in Durango, Colorado and coordinates EPA's response between the EPA Regions 6, 8, and 9.

Active disaster declarations remain in effect for State of Colorado, San Juan County, Town of Silverton, La Plata County, City of Durango, and Southern Ute Tribe. The public health advisory issued 8/14/2015 by CDPHE for the Animas River remains active.

A Joint Information Center (JIC) and an EPA AC public information officer (PIO) are co-located and coordinating support for the UC and the EPA AC respectively.

Introduction

1.0 Background

Site Number: A8K9RV		Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	
NPL Status: not listed		Operable Unit:	
Mobilization Date:	08/05/2015	Start Date:	08/05/15
Demob Date: TBD		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	08/05/15

2.0 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine discharged acidic mine drainage that is a contributor of heavy metals into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

3.0 Description of Threat

Mine waste water was released into Cement Creek and the Animas River as a result of the blowout on 8/5/2015. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station was estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and dissolved metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah.

4.0 Critical Resource Needs

Resources for the response continue to be ordered as needed to fill critical resource needs.

5.0 Incident Objectives

- Ensure health and safety of the public and response management personnel
- Continue implementation of private well sampling and river monitoring plans
- Facilitate transition and approach to medium term sediment and river monitoring plans
- Continue coordination with State, Federal, Tribal and local Stakeholders and Neighboring jurisdictions
- Continue management of adit discharge
- Ensure continued access to mine site and continue mine dump stabilization
- Continue data sharing with local stakeholders
- Continue assessment of land owner complaints regarding sediment impacts
- Assess applicable criteria for incident end points

Current Activities

6.0 Environmental Branch

6.1 Assessment and Mitigation Group

- **EPA, START, and ERRS continue meeting with property owners to evaluate sediments trapped along the banks. A civil engineer from START consulted on safety and access for heavy equipment to sediment areas.**
- **Branch OSC contacted a resident whose well indicated levels of lead slightly above the MCL. The owner does not use this well for drinking water and has agreed to continue this practice. This property is being closed out.**
- **Two sampling events postponed because of weather.**
- **EPA received permission from Ute Tribe to cross Tribal lands with a property owner who has an existing crossing permit.**

6.2 Sampling Group

6.21 Surface Water.

The EPA continues to sample seven surface water locations as follows:
Cement Creek – 1
Animas River upstream of confluence with Cement Creek – 1
Animas River downstream of confluence with Cement Creek – 1
Animas River through Durango – 4

6.22 Sediments.

EPA collected seven sediment samples at the same sites as surface water sampling. Sediment sampling was resumed on 8/27/15 in response to heavy rains and increased likelihood for movement of sediments.

6.23 The EPA samples collected on 8/27/2015 are provided in the following table:

Matrix	Number of Samples *	Total Samples Collected
Potable Water	0	336
Sediment	8	59
Surface Water	8	263

*Quality Assurance samples are included in these numbers.

6.3 Residential Sampling

In the initial phase of the response private well sampling was based on community request in response to reverse 911 calls (La Plate County and JIC). This resulted in over 300 initial sample requests, many of which were sampled. Since the initial response, EPA has transitioned to the Alluvial Groundwater Sample Approach, which focuses on wells in proximity to the alluvial

zone, a buffer area from 200 to 600 feet from the banks of the Animas River (and various canals) from Bakers Bridge south to the Colorado New Mexico State line. EPA has identified a total of 155 private wells within the buffer area under the Alluvial Groundwater Sample Approach.

To date, 289 private wells have been sampled outside of the buffer area and 45 have been sampled inside the buffer area for a total sample count of 334 private wells sampled. As the table below shows, there remain 110 private wells identified within the buffer area under the sample approach that have not been sampled. EPA continues attempts to contact these residences via phone calls and flyers (mailed) to offer sampling of their wells. EPA has stopped attempting to contact the remaining 49 residences outside the buffer area for sampling, but will continue to address any requests on a case by case basis.

To date, eight private wells had detections of one or more metals above the EPA MCL, seven outside the buffer, and one inside the buffer. A second sampling event at four of these residences has been completed at their tap. The results showed one or more metals elevated above the EPA MCL at one residence within the buffer and three outside the buffer.

6.4 Alluvial groundwater private well sampling within the buffer area as of 8/27/2015.

Total Wells	Total Samples	Wells Remaining
155	45	110

6.5 Water Distribution

On 8/27/15 potable water delivery of **46,000 gallons was made to one location. Bottled water was provided to one other residence.**

7.0 Colorado Department of Public Health and Environment

No report.

8.0 Mine Division Response Actions

The EPA continues to operate and work on optimizing treatment and sedimentation ponds at the mine site that are treating water by adjusting pH and removing dissolved metals.

8.1 Water Treatment

- **Lime addition is ongoing; flocculent used if needed.**
- **Lime hopper delivered.**
- Diverting Gold King mine water to the R&B settling ponds.
- **Covered R&B settling pond #4 with felt and began pumping from the Gold King mine stream right to R&B settling pond #4.**

8.2 Water Quality Sampling

- Water quality parameters collected at 11 locations three times daily
- **Flow Rate of 599 GPM was recorded at 0900 from the Gold King Mine adit portal.**
- **More rain today caused turbid conditions.**

8.3 Sediment Recovery

- Developing plan for sediment repository.

8.4 Gold King Mine

- **Goff Co. conducted LIDAR mapping on the Gold King mine waste dump.**

8.5 Mine Logistics

- Determine appropriate shelter for lime addition area.

8.6 Site Visits

- None.

8.7 Other activities occurring in the area that are not directly associated with the response:

- Bureau of Land Management (BLM) is conducting a survey of roads near the mine site.
- Survey to be conducted for Gold King Mine portal area and waste dump.

Anticipated Activities

9.0 Durango Area Anticipated Activities

No Report.

10.0 Mine Division Anticipated Activities

- Routing alignment and engineering solutions for diversion to R&B and down to Gladstone in development.
- Automated lime treatment system in development.
- **Get survey results from Goff Co. to see what work needs to be conducted on the Gold King Mine waste dump.**
- **Evaluate location for winter treatment options.**
- **Prepare for North Fork Cement Creek clean out of impacted material.**

11.0 Anticipated Visits

No Report.

12.0 Other anticipated activities in the area that are not directly associated with the response:

No Report.

Command and General Staff

13.0 Logistics Section
No Report.

14.0 Finance Section
The EPA Region 8 total cost as of 8/26/2015 is **$2,904,439.00**. The estimated burn rate ($/day) is **$82,175.00.**

15.0 Safety Officer
Be cautious because Hunting Season begins tomorrow August 29th with bow for Elk and Mule Deer. Our work area is located west of I-25.

Archery hunting seasons:
Mule deer/elk (west of I-25 and Unit 140): Aug 29–Sept. 27
Plains deer (east of I-25, except Unit 140): Oct 1–23, Nov 4–30, Dec 15–31
Moose: Sep 12–27
Pronghorn (bucks only): Aug 15–31
Pronghorn (either sex): Sep 1–20

No Injuries/Accidents (beyond first aid) were reported on 8/27/2015. Two total to date.

The Emergency Response Peer Support team offers trained peer staff with whom you can talk to on a private basis, either in person or over the phone, when you feel stressed. Come and relax at the CISM Room. You can rest, have snacks, meditate or just chat.

You can contact your CISM team members at any time (24/7):
Tony Honnellio (R-1): 617 947-4414
Carter Williamson: 404-229-9507

CISM had 12 visitors on 8/27/2015.

16.0 Liaison Officer
No report.

17.0 Information Officer
No Report.

18.0 Weather Forecast:

18.1 DURANGO AREA

- **Tonight 8/28/2015**
  - Partly cloudy, with a low around 53. Southwest wind around 5 mph becoming northeast after midnight.
- **Saturday 8/29/2015**
  - A 10 percent chance of showers and thunderstorms after 2pm. Mostly sunny, with a high near 83. Northeast wind 5 to 10 mph becoming south southwest in the afternoon.
- **Saturday Night 8/29/2015**
  - A 10 percent chance of showers and thunderstorms before midnight. Partly cloudy, with a low around 54. Southwest wind around 5 mph becoming east northeast after midnight.

18.2 SILVERTON AREA

- **Tonight 8/28/2015**
  - A 10 percent chance of showers and thunderstorms before 7pm. Partly cloudy, with a low around 40. North northeast wind 5 to 10 mph becoming south southeast after midnight.

- **Saturday 8/29/2015**
  - A 30 percent chance of showers and thunderstorms, mainly between 3pm and 5pm. Mostly sunny, with a high near 70. South southeast wind 5 to 10 mph becoming southwest in the afternoon.
- **Saturday Night 8/29/2015**
  - A 20 percent chance of showers and thunderstorms before midnight. Partly cloudy, with a low around 41. South wind around 5 mph.

19.0 Participating Entities

19.1 EPA Area Command

The AC includes EPA Regions 6, 8 and 9. The EPA Region 8 includes Colorado. The EPA Region 6 is working closely with the New Mexico Environment Department (NMED) and the EPA Region 9 is working with the Navajo Nation. The AC is completing daily Executive Summary updates on AC operational activities.

19.2 Unified Command and Cooperating Agencies

The Southern Ute Indian Tribe has discontinued Animas River water sampling. As a proactive measure, the SUIT is continuing installing reverse osmosis on tribal residential kitchen taps. If individual drinking well sampling results show any concerns, additional actions will be taken.

US Bureau of Reclamation (USBR) Technical Service Center continues to provide technical assistance for the EPA road stabilization efforts in and around the mine site.

19.3 Total Personnel in the Field as of 8/27/2015.

Group	Number
EPA @ REOC	(12 on call)
Contractors @ REOC	0
EPA in Field	4
EPA Contractors in Field	36
Contractors Laboratory	0
USCG	6
ERT	2
Subtotal EPA Region 8 Resources	48 (+12 on call)

19.4 Personnel working at the Colorado Unified Command Post as of 08/27/15.

(Does not include Area Command Personnel):

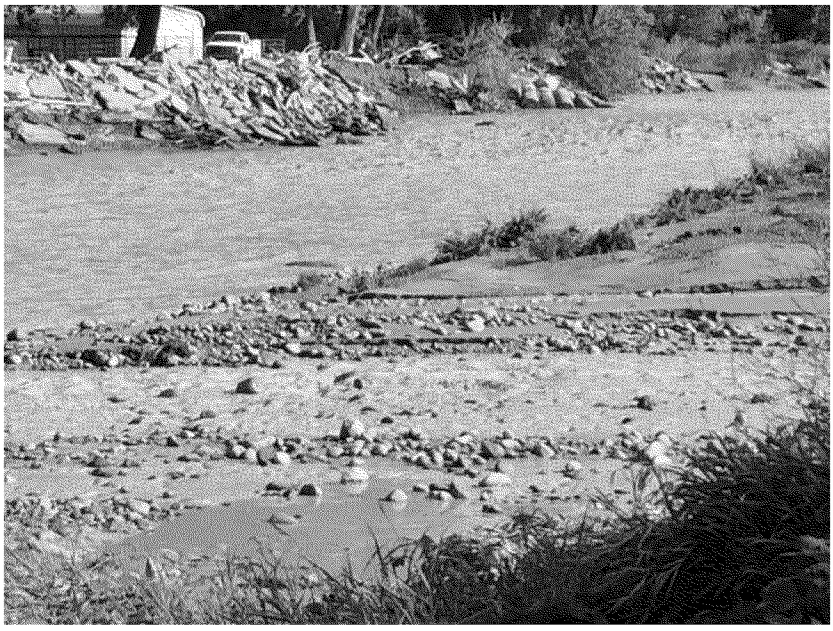
Position / Section	Number of Personnel
Unified Command	6*
PIO	6
Safety	2
Operations	2
Planning (incl SITL, ENVL & RESL)	4
Logistics	0
Finance	2
Liaisons	0
Agency Representatives/Administrators	2*
Total	28

*Includes 6 non-federal personnel from state, local, and tribal agencies

19.5 Organizations with personnel assigned to the response under the UC include:

- Colorado OEM
- Southern Ute Tribe
- La Plata County
- San Juan County
- Colorado Department of Public Health and Environment
- State of Colorado resources: Southwest IMT, Northwest IMT, Boulder IMT, Jeffco IMT
- City of Durango
- San Juan Basin Health Dept.
- US Bureau of Reclamation
- US Bureau of Indian Affairs
- US Coast Guard

U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT
Gold King Mine Spill - Region 6



Animas River

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #21
Gold King Mine Spill - Region 6

Various New Mexico locations, NM
Latitude: 36.8374600 Longitude: -107.9916800

From: Ronnie Crossland, Region 6 Regional Incident Commander (RIC)

Date: 8/28/2015

Reporting Period: 8/27/2015 0700 – 8/27/2015 1900

1. Introduction

1.1 Description of Threat

Region 8 reported approximately three million gallons of mine waste water was released into Cement Creek and the Animas River. The primary environmental concern is the pulse of contaminated water containing sediment and metals flowing as an orange-colored discharge downstream through Durango, Colorado, and into New Mexico and Utah.

1.2 Preliminary Removal Assessment/Removal Site Inspection Results

Water monitoring and sampling is ongoing at public water supply intakes and private wells and field pH levels and other water quality parameters are being monitored.

2. Current Activities

2.1 Operations Section

NMED issued a News Advisory for San Juan County urging private well owners to take water precautions after flooding caused by recent heavy rains. No mention was made of the Gold King Mine Spill in the advisory.

EPA has completed all private well sampling requests that have been received. Data for the first and second round of sampling will be delivered on August 28-29, 2015, to the residents whose wells were sampled.

EPA is developing a Region 6 addendum to the Region 8 Draft Post Incident Gold King Mine Monitoring Plan. Region 6 is developing Data Quality Objectives which will be used for future sampling and monitoring events. The Data Quality Objectives will be discussed with NMED.

Region 6 is coordinating with various agencies to gather historic sediment and service water data. USGS and NMED shared data which is being evaluated by the REOC.

EPA has sent NMED validated data for the following:

- Surface Water Sampling Analytical Data from August 6-14, 2015
- Surface Water Monitoring Data from August 6-14, 2015
- Intake Sediment Sampling Analytical Data from August 10-14, 2015
- Irrigation Ditch Sediment Sampling Analytical Data from August 13-14, 2015
- Private Well Data from August 10-14, 2015 and August 19-21 and August 24, 2015

Data Posted to the Web

The following data was sent to HQ for final validation:

- Drinking Water Intake Surface Water Data from August 15-22
- Sediment Data from Intakes from August 15-22, 24

Community Meeting/VIP

An Animas River Recovery Open House is scheduled for Farmington, NM on Tuesday, September 1, 2015 from 3 pm to 8 pm MDT. Areas of interest to be covered include, "Anticipated Long Term Environmental Monitoring of the River and Sediments", "Water Quality" and "Economic Impacts:Claims" The EPA Region 6 Incident Commander is scheduled to attend along with a member of the EPA Region 6 Environmental Unit.

Toll-Free Number Activity

The EPA number is now immediately connecting to the Headquarters number.

	08/27/2015	Total to Date
Total Calls Received	0	190
Calls Concerning R6	0	64
Calls Returned by R6	0	64

TOPIC OF CALL	08/27/2015	OVERALL TOTALS
Well Water Test Scheduling	0	20
Water Concerns	0	8
Health Concerns	0	4
Livestock/Irrigation	0	4
Tourism/Media	0	1
Volunteer Offers	0	3
General Concerns	0	18
Contractor/Vendor Support	0	6

Private Drinking Water Well Sampling

Matrix	US EPA Region	Qty. (8/26/2015)	Qty. (Cumulative)
Private Drinking Water Wells Resampled	6	0	100
Private Drinking Water Wells Initial Sample Effort	6	0	114

Surface Water and Sediment Sampling

Matrix	US EPA Region	Qty. (8/26/2015)	Qty. (Cumulative)
Surface Water Samples	6	9	184
Sediment Samples	6	9	163

2.2 Finance Section

Daily Cost Estimates Report						
Reg	**U.S. EPA Cumulative Expended Payroll**	**U.S. EPA Cumulative Expended Travel**	**U.S. EPA Cumulative Other Charges**	**Cumulative U.S. EPA Contractors Cost**	**Total Cumulative Costs**	**Estimated Daily Burn Rate**
6	$376,740.00	$102,250.00	$12,989.44	$2,050,700.00	$2,542,679.44	$58,710.00

3. Participating Entities in Region 6

US EPA
USFWS
NMED
NM Department of Health
NM Office of the State Engineer NM
Department of Game and Fish
County of San Juan – New Mexico

4. Personnel

Group	Number
Region 6 EPA @ REOC	12
Region 6 Contractors @ REOC	5
Region 6 Staff in JIC – Durango,CO	3
Region 6 Staff in Area Command – Durango,CO	4
Region 6 EPA OSC	1
Region 6/7 Water Technicians	1
Region 6 EPA Contractors in Field	10

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
San Juan River Response - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IX

Subject: **POLREP #15**
San Juan River Response
Shiprock, NM
Latitude: 36.8704828 Longitude: -108.7892506

To: Calanog Steve, EPA

From: Kathleen Dillon, Situation Unit Leader
Date: 8/28/2015
Reporting Period:

1. Introduction

1.1 Background

Site Number:	**Contract Number:**
D.O. Number:	**Action Memo Date:**
Response Authority:	**Response Type:**
Response Lead:	**Incident Category:**
NPL Status:	**Operable Unit:**
Mobilization Date:	**Start Date:**
Demob Date:	**Completion Date:**
CERCLIS ID:	**RCRIS ID:**
ERNS No.:	**State Notification:**
FPN#:	**Reimbursable Account #:**

1.1.1 Incident Category

1.1.2 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

EPA Region 9 is focused on a stretch of the San Juan River extending from Farmington, NM to Mexican Hat, UT.

1.1.2.1 Location

San Juan County, NM and Navajo Reservation. The Animas River flows into the San Juan River at Farmington, NM. After the Animas River meets the San Juan River, the San Juan River continues to flow west through parts of New Mexico, Colorado, and Utah.

1.1.2.2 Description of Threat

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek guaging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah. The river is also used for recreational purposes,

including fishing and rafting, and is an important cultural resource for the Navajo Nation.

The leading edge of the release reached the New Mexico border on August 8, 2015 where it eventually discharged into the San Juan River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream. There is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

EPA Region 9 is collecting and assessing water quality from the San Juan River from La Plata Highway in New Mexico to Mexican Hat in Utah. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

1.2 Incident Objectives

1.Safety
-Provide safe working environment for all response personnel
-Identify safety issues and monitor adherence to Health and Safety Plan
-Maximize protection of public health and welfare
2.Sampling
-Conduct water and sediment sampling from 11 designated locations along the San Juan River
-Conduct sampling from Lake Powell at 11 identified sites
-Synchronize sampling data and information with Area Command
3.Water and Agricultural Needs
-Procure water trucks and establish watering points
-Establish needs and delivery of water and feed for livestock

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Farmington ICP is now on a 96-hour operational period. The next Incident Action Plan will be delivered on Sunday evening.

Sampling along the San Juan River has stopped for the weekend. Starting next week sampling will be moving to a twice-weekly schedule where samples will be taken at 5-6 sampling locations on Mondays and Thursdays. Alfalfa deliveries are ongoing. One START contractor is on scene at Lake Powell gathering samples. The Lake Powell operation is expected to conclude on Sunday and the START contractor will be demobilized at this time.

The Community Outreach branch has demobilized and ERRS contractors currently staffing the Logistics Section are demobilizing today. Coordination of alfalfa orders will be handled remotely.

2.1.2 Response Actions to Date

Sampling Branch

EPA Region 9 initiated water and sediment sampling efforts on August 9, 2015, to assess the impacts of the release at the Gold King Mine on the San Juan River. Starting on August 9, samples were gathered from the shoreline of the following designated locations along the San Juan River. Samples will not be collected again until Monday due to lack of availability of law enforcement escorts.

New Mexico
San Juan River at LaPlata Highway (SJLP)
PNM Intake (SJFP)
San Juan River at Hogback (SJHB)
San Juan River at Shiprock (SJSR)
San Juan DS from Shiprock (SJDS)
San Juan River at Four Corners (SJ4C)

Utah
San Juan River at McElmo Creek (SJME)
San Juan at Montezuma Creek (SJMC)
San Juan River at Bluff Bridge (SJBB)
San Juan River at Mexican Hat (SJMH)
McElmo Creek Tributary (MECT)

Sample totals are summarized below:

	U.S. EPA Region	Qty. (8/27/2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	9	0	0
Surface Water Samples	9	11	181
Sediment Samples	9	11	163

August 8 - 4 water samples (SJLP, SJFP, SJHB & SJSR)
August 9 - 13 water samples (all sites)
August 10 - 12 water samples, 11 sediment samples (all sites)
August 11 - 13 water samples, 13 sediment samples (all sites)
August 12 - 13 water samples, 13 sediment samples (all sites)
August 13 - 12 water samples, 12 sediment samples (all sites)
August 14 - 12 water samples, 12 sediment samples (all sites)
August 15 - 12 water samples, 12 sediment samples (all sites)
August 16 - 12 water samples, 12 sediment samples (all sites)
August 17 - 12 water samples, 12 sediment samples (all sites)
August 18 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)
August 19 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)
August 20 - no samples collected
August 21 - no samples collected
August 22 - no samples collected
August 23 - no samples collected
August 24 - 12 water samples, 12 sediment samples
August 25 - 12 water samples, 12 sediment samples
August 26 - 11 water samples, 11 sediment samples (did not sample at SJDS)
August 27 - 11 water samples, 11 sediment samples (did not sample at SJDS)

There have been no requests for well samples and no requests for samples from diversion channels.

Community Relations Branch

All community involvement duties are suspended under the current order.

Water and Feed Delivery Branch

A summary of water and livestock feed deliveries are as follow:

Activity	U.S. EPA Region	8/27/2015 Deliveries (each)	8/27/2015 Qty. (gal)	8/27/2015 Qty. (hay bales)	Cumulative Deliveries (each)	Cumulative Qty. (gal)	Cumulative Qty. (hay bales)
Potable Water Deliveries	9	0	0	0	0	0	0
Livestock / Agricultural Water Deliveries	9	0	0	0	13	218,400	0
Agricultural Food Deliveries	9	2	0	768	11	0	4324

Feed delivered for livestock is as follows:

8/14 - 384 bales of alfalfa delivered to Gaadiiahi chapter
8/21 - 384 bales delivered to Gaadiiahi, 384 bales delivered to Nenahnezad, 384 bales delivered to Hogback, 384 bales delivered to Upper Fruitland
8/22 - 384 bales delivered to Beclibito
8/24 - 384 bales delivered to Shiprock, 384 bales delivered to Red Mesa, 384 bales delivered to Aneth
8/27 - 384 bales delivered to Oljeto, 384 bales delivered to Mexican Water

Drinking Water System Impacts

No known water systems in Region 9 have been impacted.

Glen Canyon, Arizona ICP

One START contractor is the only representative to remain on scene in the Lake Powell vicinity. He has been integrated into a USGS/NPS

expedition that is expected to conclude on Sunday.Yesterday, the START contractor that had been underway with the expedition was replaced by a different START contractor. The samples collected through yesterday were dropped off for analysis.

Sampling efforts throughout this expedition are detailed below.

Matrix	U.S. EPA Region	Qty. (8/27/2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	9	0	0
Water Samples (at 4 different depths)	9	0	80
Sediment Samples	9	0	20

2.2 Planning Section

2.2.1 Anticipated Activities

Because Navajo law enforcement representatives are unable to support sampling on a daily basis, sampling will be scaled back to Mondays and Thursdays after today.

One START contractor is the only member that remains working out of the Lake Powell area. He is working with a USGS/NPS crew on scene and has embarked on a 14 day trip. The trip will conclude this weekend.

Feed is continuing to be delivered to various Navajo chapters. Deliveries are expected to be made to Teec Nos Pas and Navajo Mountain tomorrow.

2.2.1.2 Next Steps

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2.2.2 Issues

On 17AUG15, at approximately 1130, seven members of the Farmington ICP response team were approached in the farmland area of Shiprock by a member of the Navajo Nation. The individual is in opposition to the response operations of Farmington ICP in regards to water and feed deliveries in the Shiprock Chapter. During the confrontation, the response personnel were threatened by being told their vehicles "would be stoned". They were also intimidated by a second vehicle that showed up in support of the individual. The response personnel listened to what the individual had to say and eventually left.

At approximately 1215, another incident occurred with the same individual at the bridge in Shiprock. There, the individual argued with 2 EPA employees and threatened to break their equipment. The individual left after a few minutes. In both cases the response personnel returned to the Farmington ICP and were unharmed.

An investigation is being conducted by the Navajo Department of Criminal Investigation.

On 19AUG15, a video was posted on social media that showed Navajo Nation President and Attorney General alleging contamination in one of the water tanks delivered by the EPA.

2.3 Logistics Section

NAPI requires a 3-day advance notice prior to alfalfa deliveries in order to make appropriate accomodations.

2.4 Finance Section

2.4.1 Narrative

Region	U.S. EPA Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	Cumulative U.S. EPA Contractors Cost	Total Cumulative Costs	Estimated Daily Burn Rate
9				$973,000 (estimated)	$1,009,000(estimated)	$24,000(estimated)

2.5 Other Command Staff

2.5.1 Safety Officer

With weather being forecasted into the 90s, hydration is of paramount importance. Additionally, much of the terrain surrounding the river is uneven and rocky. Responders should transit these areas with care.

While transiting throughout the region, responders should be mindful of the potential for contact with wildlife. Scorpions, snakes, and other similar animals raise a potential for injury.

2.5.2 Liaison Officer

Liaison officers are continuing outreach with Navajo community members and representatives of the Navajo Tribe.

2.5.3. Weather Forecast

Weather forecast for Friday, August 28

FARMINGTON AREA

Today
A mix of sun and clouds with a high of 89, low of 57 and 20% chance of precipitation. Wind coming out of the east at 8 miles per hour.

Tonight
Chance of precipitation tonight. Partly cloudy, with a low around 57.

Tomorrow
Sunny with a high of 88, low of 59. 20% chance of precipitation.

3. Participating Entities

3.1 Area Command

EPA Region 9 is coordinating with EPA Regions 6 and 8, Navajo Nation, and the states of Colorado, New Mexico, Utah, and Arizona. The EPA Region 9 is working with the Navajo Nation to evaluate possible impacts to the Tribe. Potentially impacted water systems have been notified, and precautions are in place to ensure drinking water is protected. The EPA and New Mexico Environmental Department are providing assistance to community water systems and closely monitoring the situation. EPA Region 9 has contacted the Bureau of Indian Affairs regarding potential impacts to the Navajo Nation and is currently working with Navajo liaisons.

3.2 Incident Command and Cooperating Agencies

The Farmington Incident Command includes EPA Region 9 and United States Coast Guard. Donn Zuroski has relieved Bret Moxley as Incident Commander. **Deputy Incident Commander has demobilized and Incident Commander (Donn Zuroski) will be demobilizing Saturday.**

4. Personnel On Site

Region	Agency / Entity	Number of Personnel (8/27/2015)
	U.S. EPA Personnel	3
	U.S. EPA Contractors	4
	USCG	2
	Other Federal, State, Local and Tribal Entities - 2	

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epa.gov/goldkingmine

7. Situational Reference Materials

No information available at this time.